

REC'D 25 FEB 2005

WIPO

PCT



IP/04 1052715

Sertifikaat

REPUBLIEK VAN SUID AFRIKA

PATENT KANTOOR
DEPARTEMENT VAN HANDEL
EN NYWERHEID

Certificate

REPUBLIC OF SOUTH AFRICA

PATENT OFFICE
DEPARTMENT OF TRADE AND
INDUSTRY

Hiermee word gesertifiseer dat
This is to certify that

- 1) South African Patent Application No. 2003/9422 accompanied by a Provisional Specification was originally filed at the South African Patent Office Office on 4 December 2003, in the name of **MODULAR TRAFFIC LIGHT SYSTEM (PTY) LIMITED** in respect of an invention entitled: **TRAFFIC LIGHT ASSEMBLY**.
- 2) On 3 December 2004, the application was postdated to 8 December 2003. By virtue of such postdating, the effective filing date of the application is 8 December 2003.
- 3) The photocopy attached hereto is a true copy of the provisional specification and drawings filed with South African Patent Application No. 2003/9422.

PRIORITY DOCUMENT


SUBMITTED OR TRANSMITTED IN
COMPLIANCE WITH RULE 17.1(a) OR (b)

geteken te
ged at

PRETORIA

in die Republiek van Suid-Afrika, hierdie
in the Republic of South Africa, this

13th dag van
January 2005
day of


Registrar of Patents

BEST AVAILABLE COPY

REPUBLIC OF SOUTH AFRICA

PATENTS ACT, 1978

REGISTER OF PATENTS

OFFICIAL APPLICATION NO.		LODGING DATE : PROVISIONAL		ACCEPTANCE DATE	
21	01	22	4 December 2003	43	
INTERNATIONAL CLASSIFICATION		LODGING DATE : COMPLETE		GRANTED DATE	
51		23			

FULL NAME(S) OF APPLICANT(S) / PATENTEE(S)

71 MODULAR TRAFFIC LIGHT SYSTEM (PTY) LIMITED

APPLICANTS SUBSTITUTED :

DATE REGISTERED

71

ASSIGNEE(S)

DATE REGISTERED

71

FULL NAME(S) OF INVENTOR(S)

72 GEER, Barry

PRIORITY CLAIMED

COUNTRY

NUMBER

DATE

N.B. Use international
abbreviation for country.
(See Schedule 4)

33

31

32

TITLE OF INVENTION

54

TRAFFIC LIGHT ASSEMBLY

ADDRESS OF APPLICANT(S) / PATENTEE(S)

Summer Cottage
69 Melville Road
Hyde Park
2196
South Africa

ADDRESS FOR SERVICE

REF

74 D M Kisch Inc, 54 Wierda Road West, Wierda Valley, SANDTON

P27273ZA00

PATENT OF ADDITION NO.

DATE OF ANY CHANGE

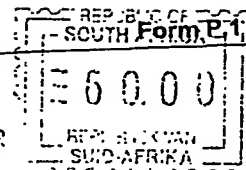
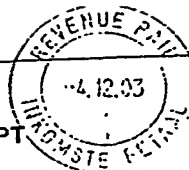
61

FRESH APPLICATION BASED ON

DATE OF ANY CHANGE

REPUBLIC OF SOUTH AFRICA
PATENTS ACT, 1978

APPLICATION FOR A PATENT AND ACKNOWLEDGEMENT OF RECEIPT
(Section 30 (1) - Regulation 22)
The grant of a patent is hereby requested by the undermentioned applicant
on the basis of the present application filed in duplicate.



OFFICIAL APPLICATION NO	
21	01 2003/9422

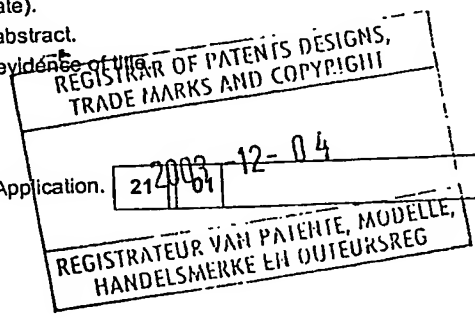
DMK REFERENCE
P27273ZA00

FULL NAME(S) OF APPLICANT(S)	
71	MODULAR TRAFFIC LIGHT SYSTEM (PTY) LIMITED

ADDRESS(ES) OF APPLICANT(S)	
	Summer Cottage 69 Melville Road Hyde Park 2196 South Africa

TITLE OF INVENTION	
54	TRAFFIC LIGHT ASSEMBLY
THE APPLICANT CLAIMS PRIORITY AS SET OUT ON THE ACCOMPANING FORM P2 The earliest priority claimed is	
THIS APPLICATION IS FOR A PATENT OF ADDITION TO PATENT APPLICATION NO.	
21	01
THIS APPLICATION IS FRESH APPLICATION IN TERMS OF SECTION 37 AND BASED ON APPLICATION NO.	
21	01

THIS APPLICATION IS ACCOMPANIED BY :	
X	1a A single copy of a provisional specification of 8 pages.
	1b Two copies of a complete specification of pages.
	2a Informal drawings of sheets.
X	2b Formal drawings of 4 sheets.
	3 Publication particulars and abstract (form P8 in duplicate).
	4 A copy of figure of the drawings for the abstract.
	5 Assignment of invention (from the inventors) or other evidence of title.
	6 Certified priority document(s).
	7 Translation of priority document(s).
	8 Assignment of priority rights.
	9 A copy of form P2 and a specification of S.A. Patent Application.
	10 A declaration and power of attorney on form P3.
	11 Request for ante-dating on form P4.
	12 Request for classification on form P9.
	13a Request for delay of acceptance on form P4.
	13b



DATED 4 December 2003

Patent Attorney for Applicant(s)

ADDRESS FOR SERVICE	
74	D M Kisch Inc Inanda Greens Business Park 54 Wierda Road West Wierda Valley SANDTON

RECEIVED
OFFICIAL DATE STAMP
REGISTRAR OF PATENTS

The duplicate will be returned to the applicant's address for service as proof of lodging but is not valid unless endorsed with official stamp.

D. M. Kisch Inc, Sandton

Form P.6

REPUBLIC OF SOUTH AFRICA

PATENTS ACT, 1978

PROVISIONAL SPECIFICATION
(Section 30 (1) - Regulation 27)

OFFICIAL APPLICATION NO.		LODGING DATE		DMK REFERENCE
21	01 2003/9422	22	4 December 2003	P27273ZA00
FULL NAME(S) OF APPLICANT(S)				
71	MODULAR TRAFFIC LIGHT SYSTEM (PTY) LIMITED			
FULL NAME(S) OF INVENTOR(S)				
72	GEER, Barry			
TITLE OF INVENTION				
54	TRAFFIC LIGHT ASSEMBLY			

TRAFFIC LIGHT ASSEMBLY

FIELD OF THE INVENTION

This invention relates to a traffic light assembly and more particularly, to a modular traffic light assembly.

BACKGROUND OF THE INVENTION

Traffic light assemblies are used in urban areas to control the flow of traffic at road intersections. Conventional traffic light assemblies includes a pole in the form of a hollow integrally formed pipe and at least one head panel secured to the pole. Each head panel includes a plurality of lights of three different colours.

The operation of traffic light assemblies may be compromised in various ways such as for example a failure of light bulbs or disruption of electrical contact between the traffic light and source of electrical power. Traffic light assemblies may also be run over by a motor vehicle.

In repairing a conventional traffic light, which was run over by a motor vehicle, the integrally formed pole is replaced, often at a large cost. Such replacement may also be time consuming.

When a light of a conventional traffic light assembly is faulty, the head panel is normally removed, the fault traced and the repairs then made, whereafter the head

panel is re-assembled and attached to the pole. This procedure may be time consuming.

Dysfunctional traffic light assemblies often causes substantial traffic jams resulting in a loss of productive time of economically active people. It is therefore critical that faulty traffic light assemblies be repaired speedily and cost effectively.

OBJECT OF THE INVENTION

It is an object of this invention to provide a traffic light assembly which, at least partially, alleviates some of the disadvantages associated with the prior art.

SUMMARY OF THE INVENTION

According to this invention there is provided a traffic light assembly comprising: a pole; and a head which is connectable to the pole, the head including a base, a cap and cap securing means for securing the cap to the base, the base and cap having holding means for holding a traffic light to the head when the cap is secured to the base, such that the traffic light may be held in a plurality of positions about the pole.

The holding means may be lip formations extending upwardly from the base and downwardly from the cap for receiving lugs of a traffic light therein. The lip formations may be channels. The lip formations preferably are a set of opposing circular channels arranged about the axis of the pole.

In one embodiment of the invention, the base and cap are circular and the lip formations extend from the circumference of the base and cap. When the securing means is released, the traffic light may be slid along the lip formations and secured in the desired position.

A further feature of the invention provides for the pole to comprise a plurality of sections, which sections are interconnectable to erect the pole. Each of the sections may have a passage therethrough, such that when erected the pole has a passage therethrough, which passage extends coaxial with the pole.

The traffic light assembly may include a foot for supporting the pole in an upright position.

A further aspect of the invention provides for the traffic light assembly to include a default light, for in use indicating the failure of the traffic light.

There is also provided for the cap securing means to extend along the passage in the pole, for securing the pole to the head, when the pole is erected. The cap securing means may be a bar. The bar may have a threaded end for receiving a nut thereon.

A further feature of the invention provides for the traffic light assembly to comprise an adaptor, connectable to the head, for connecting the traffic light to the head. The adaptor may have a plurality of sockets for connecting a plurality of traffic lights to the adaptor.

A yet further aspect of the invention provides for the traffic light assembly to include a traffic light. The traffic light may include a light emitting diode.

BRIEF DESCRIPTION OF THE DRAWINGS

One embodiment of the invention is described below by way of example only and with reference to the accompanying drawings, in which:

FIGURE 1 shows a perspective view of a traffic light assembly according to this invention;

FIGURE 2 shows a perspective view of a traffic light assembly according to this invention with a traffic light connected thereto;

FIGURE 3 shows a top plan view of the traffic light assembly; and

FIGURES 4a and 4b shows a perspective view of an adaptor for connecting a plurality of traffic lights to the traffic light assembly.

DETAILED DESCRIPTION OF THE DRAWINGS

With reference to the drawings, a traffic light assembly is generally indicated by reference numeral 1.

The traffic light assembly 1 includes a pole 2 and a head 3, which is connected to the pole. The head 3 includes a base 4, a cap 5 and cap securing means 6 for securing the cap 5 to the base 4. The base 4 and cap 5 has holding means 7 and 8 for holding a traffic light to the head 3 when the cap 5 is secured to the base 4.

The base 4 and cap 5 are circular and arranged coaxial to the axis of the pole.

The holding means 7 and 8 are lip formations in the form of circular channels extending from the circumference of the base 4 and cap 5 and arranged about the axis of the pole 2 to extend upwardly from the base 4 and downwardly from the cap for receiving complementary lugs 9 and 10 of a traffic light 11 therein.

The pole 2 is made up of a plurality of sections 12 which sections are interconnectable by means of a neck and collar fit, to erect the pole. Each of the sections 12 has a passage therethrough such that when erected, the pole 2 has a passage therethrough, which passage extends coaxial with the pole.

The traffic light assembly 1 has a foot 13 for supporting the pole 2 in an upright position.

The head 3 includes a default light 14, for in use indicating the failure of a traffic light 11 of the traffic light assembly.

The cap securing means 6 is a bar, which has two threaded ends for receiving threaded nuts 15 thereon. The bar extends through the passage, from the foot to the head and secures the head, foot and pole together.

The traffic light assembly includes an adaptor 16 connected to the head. The adaptor 16 has a plurality of sockets for connecting a plurality of traffic lights 11 thereto.

The traffic light 11 includes a bank of light emitting diodes (LEDs), not shown. These diodes may be of the type being able to emit different wavelengths so as to emit light of different colour. Each of these articles are controlled to emit green, red or amber light at any given time, as described. This obviates the need to have 3 different lights. One light (bank of LEDs) can now be used to emit all 3 different colours.

The use of LEDs is also more cost effective than other lights. This also allows for the case of use of back-up batteries as such lights use less energy thus extending battery life.

In use a traffic light assembly of this invention will be assembled by erecting the pole and securing the pole, head and foot together by means of the cap securing means. The default light indicates failure of a traffic light.

A faulty traffic light is replaced by loosening either of the nuts on the cap securing means, spacing the cap and base apart and replacing the damaged light with a replacement light. It is envisaged that this repair procedure would result in a saving of cost and time.

Damage to the pole may be repaired by merely replacing those sections of the pole, which was actually damaged, thus saving costs.

The invention is not limited to the precise elements as described herein. For example, the cap securing means may be a cable, chain or rope. The sections of the pole may be interconnectable by means of overlapping portions secured together by means of screws.

Dated this 4 day of December 2003


Patent Attorney / Agent for the Applicant

MODULAR TRAFFIC LIGHT SYSTEM (PTY) LIMITED

4 SHEETS
SHEET 1

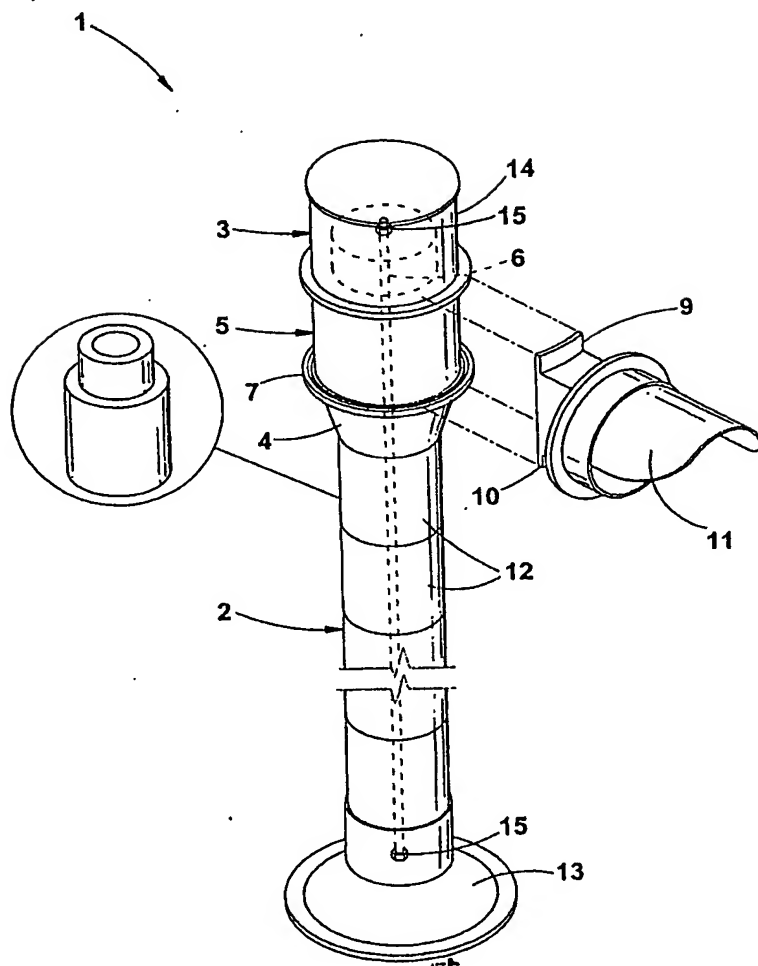


FIGURE 1

D.M. KISCH INC.

PATENT ATTORNEY FOR THE APPLICANT

MODULAR TRAFFIC LIGHT SYSTEM (PTY) LIMITED

4 SHEETS
SHEET 2

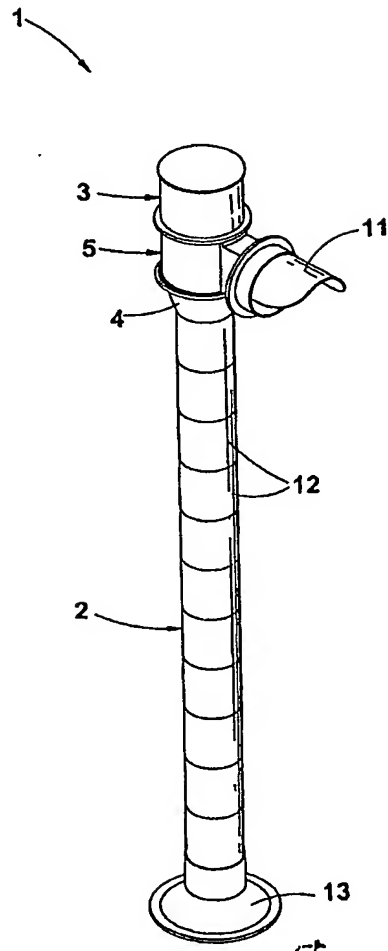


FIGURE 2

D.M. KISCH INC.

[Signature]
PATENT ATTORNEY FOR THE APPLICANT

MODULAR TRAFFIC LIGHT SYSTEM (PTY) LIMITED

4 SHEETS
SHEET 3

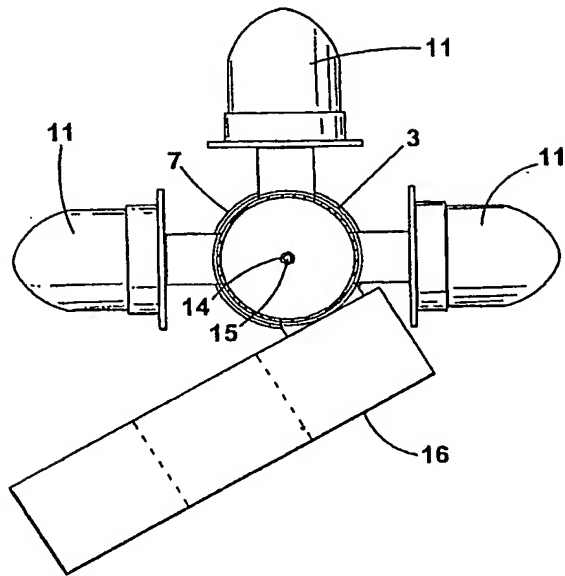


FIGURE 3

D.M. KISCH INC.

[Signature]
PATENT ATTORNEY FOR THE APPLICANT

MODULAR TRAFFIC LIGHT SYSTEM (PTY) LIMITED

4 SHEETS
SHEET 4

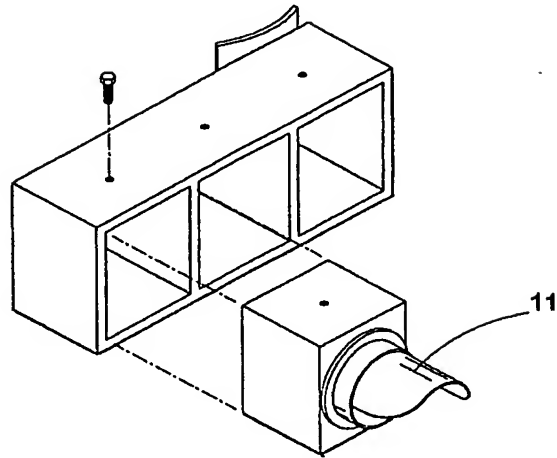


FIGURE 4a

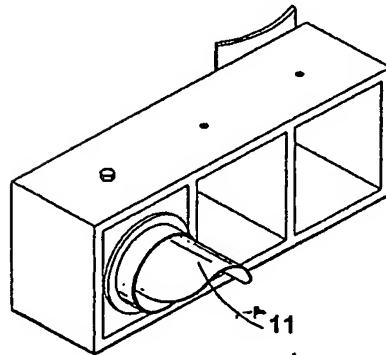


FIGURE 4b

D.M. KISCH INC.


PATENT ATTORNEY FOR THE APPLICANT

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record.**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☐ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☒ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.